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10/792,327	03/02/2004	Tsuyoshi Miura	FUJI 21.003	4400

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EXAMINER	
WERNER, DAVID N	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/792,327	MIURA ET AL.	
	Examiner	Art Unit	
	David N. Werner	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☒ Claim(s) *3,7 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 March 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20040302*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This is the First Action on the Merits for US Patent Application 10/792,327. Currently, claims 1-19 are pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to because in figure 1, the caption for component 200 (CLIENT) is not translated. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. Figures 10-15 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The abstract of the disclosure is objected to because in line 4, the word "in" should be inserted between the word "rate" and "a". Correction is required. See MPEP § 608.01(b).

6. The disclosure is objected to because of the following informalities: on page 5, line 5, the phrase "a just moment" is unclear, on page 17, line 10, the word "dispatched" should be "dispatch", on page 18, line 27, the word "then" should be deleted, and on page 20, line 7, the word "even" should be "event".

Appropriate correction is required.

Claim Objections

7. Claim 3 and claim 16 are objected to because of the following informality: the claims do not end with a period. Appropriate correction is required.

8. Claim 7 is objected to because of the following informality: on line 26, the word "in" should be inserted between the words "rate" and "a". Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 2, 6-8, 11, 14, 15, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Application Publication 2003/0118243 A1 (Sezer et al.). Sezer et al. discloses a video processor. In one embodiment of Sezer et al., a video splicer is disclosed. In order for there to be a seamless transition between slices, the duration of time DTS(L1) — T(e), in which the last frame of a first clip is loaded into a decoder buffer, must equal duration of time DTS(F2) — PCR(e2), in which the first frame of a second clip is loaded into a decoder buffer, minus the time to display one video frame

(paragraph 0090). If DTS(F2) — PCR(e2) is substantially larger than DTS(L1) — T(e) plus one video frame interval, the decoder buffer will underflow (paragraph 0090). However, if DTS(F2) — PCR(e2) is substantially smaller than DTS(L1) — T(e) plus one video frame interval, the decoder buffer will overflow (paragraph 0091). The operation of the rate control for the decoder buffer is shown in figures 5 and 6 of Sezer et al. Regarding claims 1, 7, and 14, in order to prevent this buffer overflow, one or more final frames of the first clip may be replaced with reduced-quality frames (paragraph 0094). This corresponds with the claimed "data transfer rate converting". Further, the system determines the time stamp offset V(OFFSET) between the DTS of the last video frame of the first clip, DTS(VL1), and the DTS of the first video frame of the second clip, DTS(VF2), and computes V(OFFSET) as DTS(VL1) — DTS(VF2) + one video frame duration (paragraph 0095). This calculation depends on the data conversion ratio 8/bitrate, used to determine how much to reduce the quality of the last frame in the first video clip (paragraph 0094). Then, the calculation of V(OFFSET) corresponds with the claimed "time information updating". Note that the above described system controls data flow in a buffer in a video decoder. Then, the claimed "decoding" is inherent.

Regarding claims 2, 8, and 15, step 158 of the process described by Sezer et al. reduces the amount of data in the last frame(s) of the first clip, so a reduced data transfer rate is achieved (paragraph 0094). Furthermore, the calculation of V(OFFSET), step 160, proceeds from step 158, and so if there was a data reduction, the amount of reduction is considered in performing the calculation of V(OFFSET).

Regarding claims 6, 11, and 19, PCR(e2), the Program Clock Reference of the start of the second clip, is extrapolated and adjusted from the most recent PCR of the first clip and the data transfer rate (paragraph 0090). Then, PCR(e2) corresponds with the claimed updated designated time.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 3, 9, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sezer et al. in view of European Patent Application Publication 798,924 A2 (Ito et al.). Claims 3, 9, and 16 are directed toward reducing a video data rate by only transferring and decoding intra-frames. Sezer et al. discloses reducing a video data rate by eliminating null packets or reducing frame quality (paragraph 0094), but not by dropping frames.

Ito et al. discloses a video delivery system. Regarding claims 3, 9, and 16, in Ito et al., video server 1 delivers video data 12 to client 2 (column 6: lines 11-23). When the video is first registered in video server 1, the video server creates index 13 (column 6: lines 45-56). Figure 3 illustrates index 13. A plurality of selections of pictures of the video is chosen according to various transfer rates, such as all pictures for a maximum bit rate, only I and P pictures, only I and selected P pictures, etc, for increasingly

reduced transfer rates (column 7: lines 1-21). A setting of only I pictures is fully encompassed in this index.

Sezer et al. discloses the claimed invention except for only transmitting intra-frames. Ito et al. teaches that it was known to only transmit certain frames of a video according to a transfer rate constraint. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to index a selection of video frames for reduced-rate transfer, as taught by Ito et al., since Ito et al. states in column 3: lines 3-14 that such a modification would allow continual delivery of video over a congested network.

13. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sezer et al. in view of US Patent Application Publication 2001/0036355 A1 (Kelly et al.). Claims 4 and 17 are directed to transferring audio data prior to transferring video data, and not updating the time information of the audio data. Sezer et al. is silent regarding audio.

Kelly et al. teaches a video editing system. Regarding claims 4 and 17, Kelly et al. states that while in MPEG-2 video, audio is typically presented after corresponding video, it was known to transfer audio data up to one second before the corresponding video in a multiplex (paragraph 0088). Then, the claimed limitation of transferring audio prior to transferring video is fully encompassed. In addition, in one embodiment of Kelly et al., during a video splice, the system updates the timestamps for every frame

following the splice point (paragraph 0110), and removes the leftover audio packets from before the splice point by replacing them with NULL packets (paragraph 0098).

Sezer et al. discloses the claimed invention except for handling audio. Kelly et al. teaches that it was known to update time information for video frames and remove unneeded audio frames during a video splice. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the audio processing features of Kelly et al. to the video processor of Sezer et al., since Kelly et al. states in paragraphs 0009-0010 that such a modification would reduce artifacts and discontinuities between audio and video information at the splice point.

14. Claims 5, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sezer et al. in view of Japanese Patent Application Publication 64-057887 A (Tomo), cited in the Information Disclosure Statement. Claims 5, 12, and 18 are directed to re-updating time information a second time to return the time information to its original format. Sezer et al., the closest prior art, does not disclose this feature.

Tomo teaches a system for transmitting video over a narrow-bandwidth connection. Regarding claims 5, 12, and 18, data compression circuit 4 reduces the bitrate of a video to be transmitted over a narrow-band transmission line, and data recovery circuit 7 restores the video back to the original form (abstract). If the video contains supplemental information such as time information, then restoring this information is fully encompassed in the "expansion into the original digital signal form".

Sezer et al. discloses the claimed invention except for returning video to an original format. Tomo teaches that it was known to restore video from a highly compressed signal to an original signal. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to return video to an original format after transmission, as taught by Tomo, since Tomo states in the abstract that such a modification would enable a user to view the original video after it was transmitted over a narrow-bandwidth line, such as a telephone line.

15. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sezer et al. in view of Tomo as applied to claim 12 above, and further in view of Kelly et al. Claim 13 is directed to transferring audio data prior to transferring video data, and not updating the time information of the audio data, and re-arranging the video and audio back into an original order after re-updating the video. Sezer et al. is silent regarding audio.

Kelly et al. teaches a video editing system. Regarding claims 4 and 17, Kelly et al. states that while in MPEG-2 video, audio is typically presented after corresponding video, it was known to transfer audio data up to one second before the corresponding video in a multiplex (paragraph 0088). Then, the claimed limitation of transferring audio prior to transferring video is fully encompassed. In addition, in one embodiment of Kelly et al., during a video splice, the system updates the timestamps for every frame following the splice point (paragraph 0110), and removes the leftover audio packets from before the splice point by replacing them with NULL packets (paragraph 0098).

Sezer et al. discloses the claimed invention except for handling audio. Kelly et al. teaches that it was known to update time information for video frames and remove unneeded audio frames during a video splice. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the audio processing features of Kelly et al. to the video processor of Sezer et al., since Kelly et al. states in paragraphs 0009-0010 that such a modification would reduce artifacts and discontinuities between audio and video information at the splice point.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 5,396,497 A (Veltman) discloses a system that corrects audio/video synchronization errors. US Patent 5,668,601 A (Okada et al.) discloses a system for decoding audio/video data streams in which separate timings are kept for audio and video. US Patent 5,877,812 A (Krause et al.) teaches a system for smoothing out data rate of a video stream by adjusting the alignment of various program streams. US Patent 6,031,960 A (Lane) teaches a system that updates time information for trick-play modes. US Patent 6,034,731 A (Hurst) teaches a video processing system that modifies timing information after dropping frames. US Patent 6,456,782 B1 (Kubota et al.) teaches a system for updating time information in a packet sequence according to a variable transmission rate. US Patent 6,470,051 B1 (Campisano et al.) teaches a video decoder that selectively scales certain picture frames. US Patent 6,724,825 B1 (Nemiroff et al.) teaches a transcoder that adjusts

timing data. US Patent Application Publication 2002/0196850 A1 (Liu et al.) teaches a video splicer that updates time information. US Patent Application 2003/0147561 A1 (Faibish et al.) is related to the Sezer et al. patent cited in the prior art rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Werner whose telephone number is (571) 272-9662. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri, can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DNW

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